and Abney (29). Seed infection by *Cercospora kikuchii* is probably not influenced greatly by delayed harvest, because it has been shown that infection occurs during the bloom period: Crane and Crittenden (7) and Laviolette and Athow (17). If this is the case, properly timed sprays should reduce infection by this fungus. Spray data obtained at Gainesville, Florida, by the authors (data to be presented in a separate paper) indicate that, to some extent, this does happen.

Two additional problems appear to confront seed growers. These are seed drying and storage. From the observations made on growers' seed, it would appear that growers are drying their seed at harvest to approximately 12 percent moisture, a critical point for soybean seed storage. Thus, to be safe, it would appear that when seed is stored, it should be 10 percent moisture or less. The work of Christensen and associates supports this viewpoint.

It may be that individual seed growers are not equipped to maintain dry seed storage; thus, perhaps this should be done by seedsmen who are equipped to store soybean seed as well as other seed.

If the soybean seed producers of Florida take the necessary precautions to produce good seed, the quality of Florida-grown seed should equal, or exceed, the quality of seed produced in other southeastern states.

Environmental conditions some years may cause the production of poor quality seed, but unfavorable environmental conditions can be at least partly offset, by having the seed mature during the period, late October and early November, when the percentage chance of rainfall is least (Figure 5). Further, because of this favorable period for seed maturity and harvest, Florida-produced seed usually could very well exceed the quality of seed produced in other southeastern states.

SUMMARY

A study involving fungal seed infection and germination of soybeans as affected by delayed harvest and effect of rainfall on seed quality was conducted, using material from the State Variety Trials at Gainesville, Florida, for the years 1972-1975, inclusive. In addition, rainfall patterns for Florida were studied and the probability of receiving low rainfall during specific weeks of harvest was calculated.

It was found that unharvested seed deteriorated rapidly after reaching maturity. Only deterioration caused by fungal infection was studied. Fungal infection resulted in lowered seed germination.

Rains occurring after maturity caused an accelerated rate of fungal infection and reduced viability.

Early maturing cultivars do not appear to be more susceptible to fungal seed infection than late maturing cultivars. However, under average cultural conditions, early maturing cultivars usually mature